

STRATEGIC AIRLIFT



UMODD01
TBOLC 500-500-21

C-17 Globemaster III

MCDONNELL DOUGLAS



References

DOD 4500.9-R, DTR, Part III,
Mobility

FM 55-9, *Unit Air Movement
Planning*



AMC AIRCRAFT AIRLIFT CAPABILITIES

Definitions

Inter-theater operations
(between two theaters - strategic)



CARGO ONLY AIRCRAFT



CARGO / REFUELING AIRCRAFT

Intra-theater operations
(within a specific theater - tactical)



C-130 HERCULES PROFILE



- **First Entered Service: April 1955**
- **Over 25 variations in use**
- **C-130J Model (Newest-Pictured)
Replacing Aging E Model C-130s**

C-130 "Hercules"

- Primary Function: Tactical/ intra-theater airlift.
- Length: 97 feet, 9 inches
- Height: 38 feet, 3 inches
Wingspan: 132 feet
- Maximum Takeoff Weight: 155,000 pounds
Range: 2,356 miles with maximum payload; 5,200 miles with no cargo



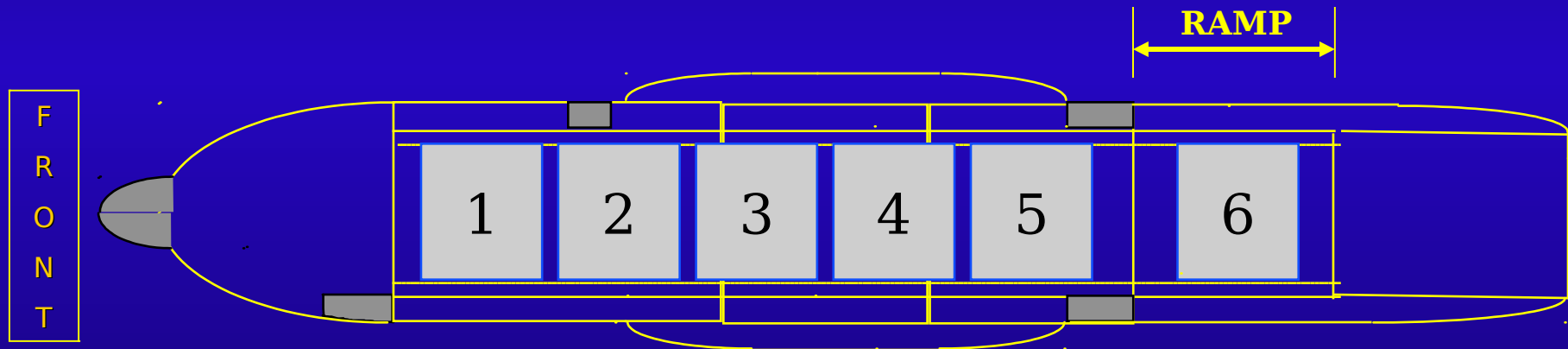
C-130 "Hercules"

(Cont.)

- Cargo Compartment:
Length 41 feet
Width 108 inches
Height 9 feet
- Rear ramp (one pallet position); length, 88 inches; width, 108 inches; height, 76 inches

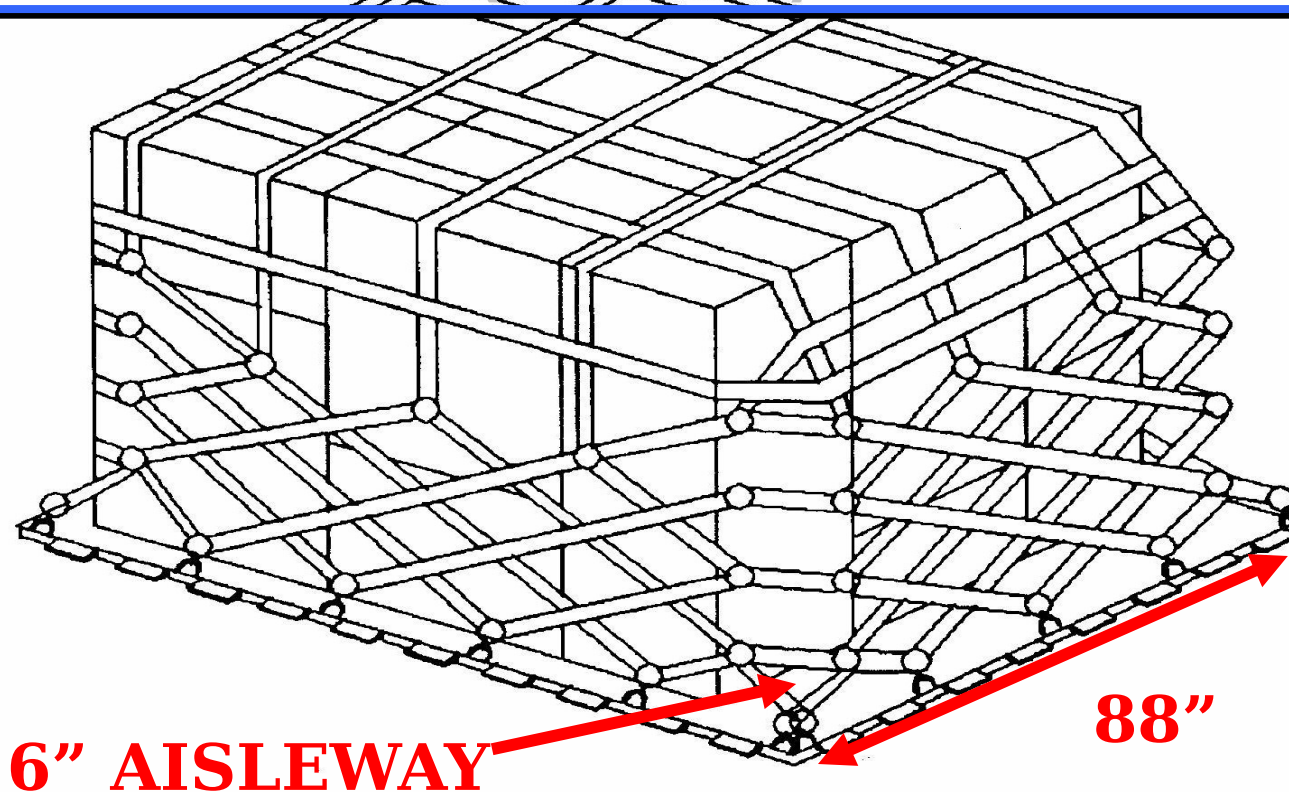


C-130 "Hercules" (Cont)



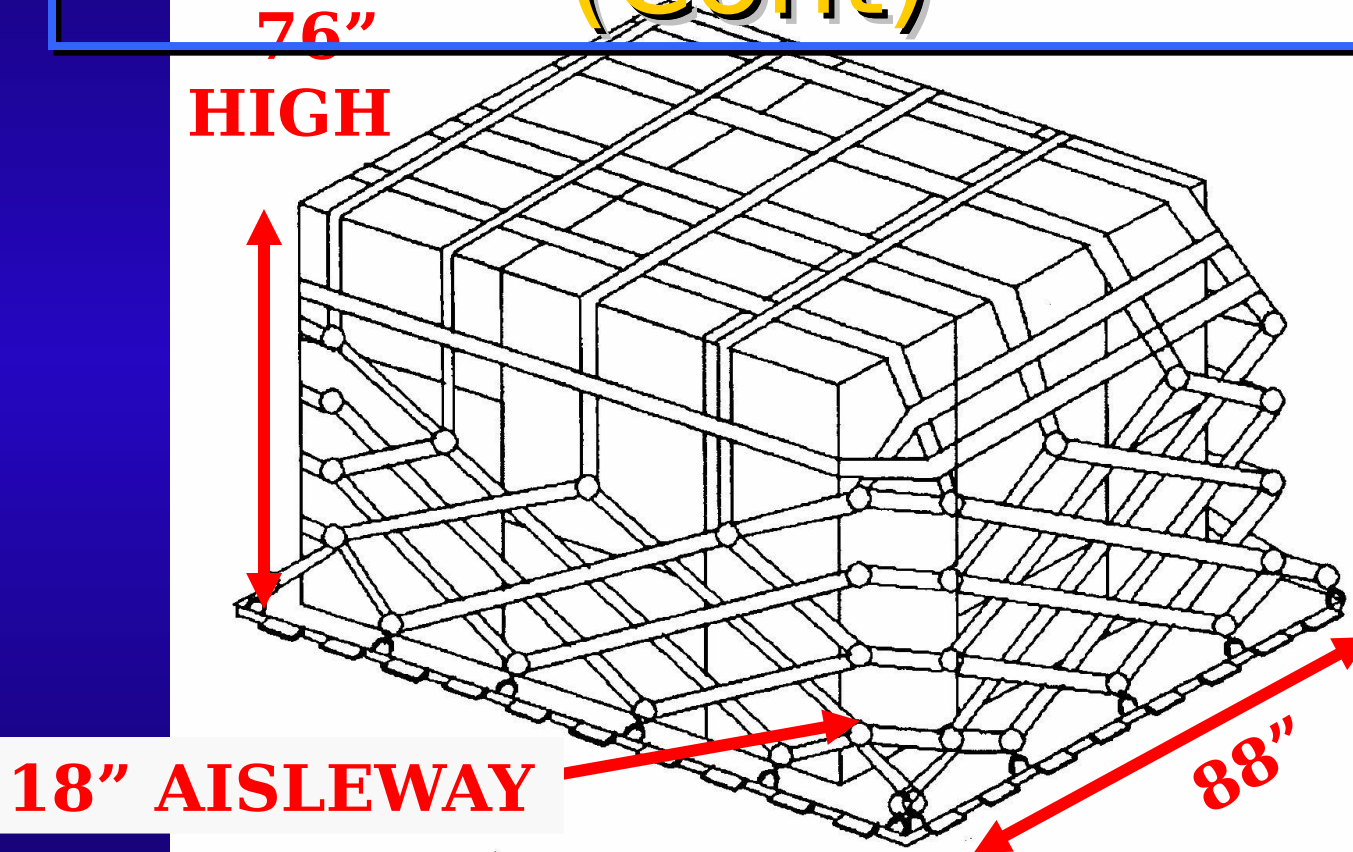
C-130 PALLET POSITIONS

C-130 "Hercules" (Cont)



C-130 PALLET POSITIONS 3 & 4

C-130 "Hercules" (Cont)



C-130 RAMP PALLET POSITION
#6

C-130 "Hercules"

(Cont.)



- Crew: **Five** (two pilots, a navigator, flight engineer and loadmaster); transports up to 92 troops, 64 paratroops, 74 litter patients, or six standard freight pallets. Maximum cargo capacity is 45,000 pounds

C-17 GLOBEMASTER III PROFILE



- **Outsize Cargo Airlifter**
- **Strategic / Tactical Long Range, High Speed, Heavy Transport**
- **Replacing Aging C-141Bs**
- **Provides Direct Delivery: Cargo - Pax**
- **Entered Service: Jan 1995**
- **Programmed to receive 120 by 2005**

C-17 “Globemaster III”

- Primary Function: **III”**
Cargo and troop transport
- Wingspan: 169 feet 10 inches (to winglet tips)
- Length: 174 feet
- Range: Global with in-flight refueling.
- Height: 55 feet 1 inch
- Maximum peacetime takeoff weight: 585,000 pounds

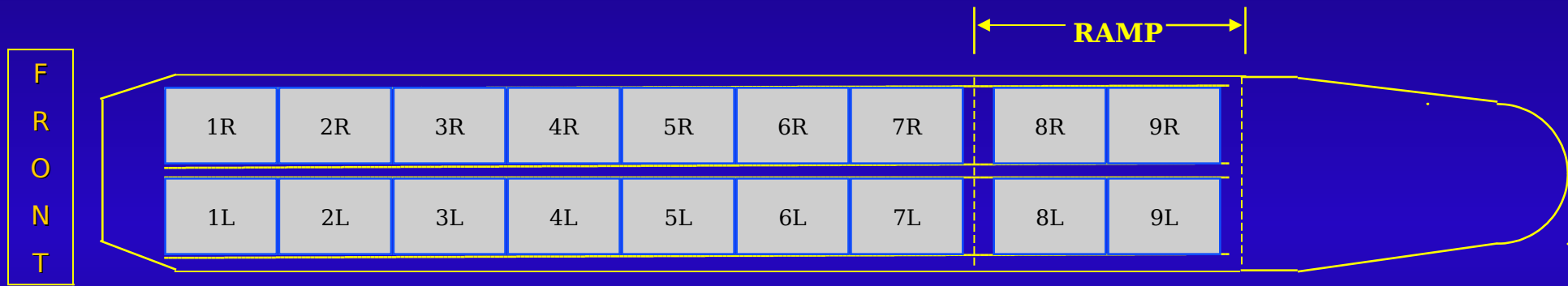


C-17 “Globemaster III” (Cont)

- Cargo Compartment:
- Length: 88 feet
- Width: 18 feet
- Height: 12 feet, 4 inches
- Cargo Load: 170,900 pounds of cargo (18 pallet positions)



C-17 “Globemaster III” (Cont)



PALLETS MUST BE ROTATED 90 DEGREES WHEN LOADING THIS CONFIGURATION

C-17 PALLET POSITIONS LOGISTICS CONFIGURATION

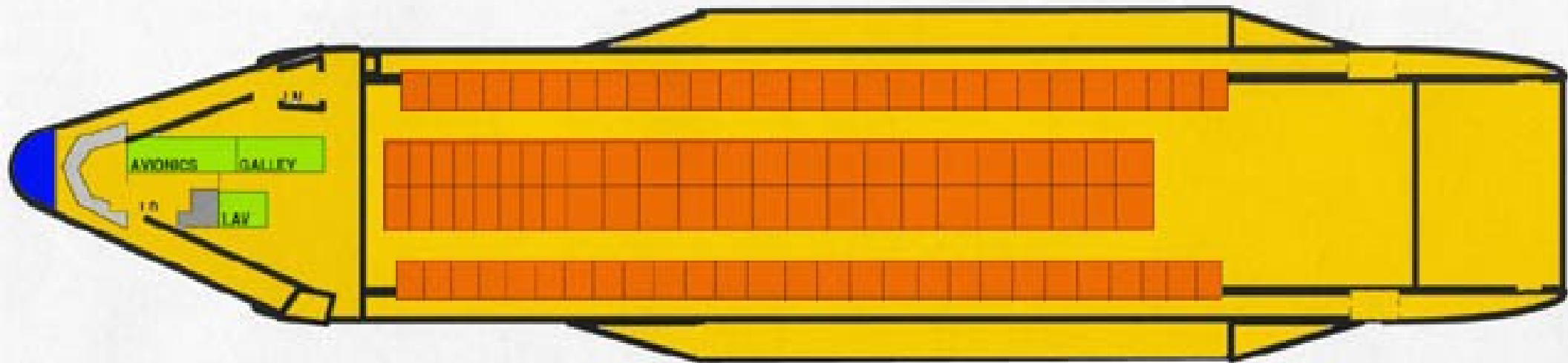
C-17 “Globemaster III” (Cont)



- Crew: Three (two pilots and one loadmaster)
- Load: 102 troops/paratroops; 48 litter and 54 ambulatory patients and attendants

C-17 "Globemaster III" (Cont)

TROOP SEATING DIAGRAM



TROOP CONFIGURATION

BASIC

54 INTEGRAL SIDE SEATS

48 CENTER SEATS

102 TOTAL SEATS

C-17 “Globemaster III” (Cont)

**CLOSE-UP VIEW
OF TROOP SEAT**



C-17 “Globemaster III” (Cont)

C-17 “TYPICAL LOAD”



C-5 GALAXY PROFILE

- **Outsize Cargo Airlifter**
- **Long Range, High Speed, Heavy Transport**
- **A Model Entered Service: June 1970**
- **B Model Entered Service: 1986**



C-5 “Galaxy”

- Primary function: Outsized cargo transport
- Wingspan: 222.9 feet Length: 247.1 feet
- Range: 4,400 miles (loaded)
11,500 miles (unloaded)



C-5 “Galaxy” (Cont)

- Special ability to lower front or rear of aircraft for loading (pilot, co-pilot, two flight engineers and three



Forward kneeling

C-5 “Galaxy” (Cont)

**C-5 KNEELED - FWD & AFT RAMP
OPEN**

“DRIVE THRU CAPABILITY”



C-5 “Galaxy” (Cont)

- Cargo compartment: Height: 13.5 ft
Width: 19 ft
Length: 143 ft, 9 inches
- Maximum cargo capacity: 170,000 lbs



C-5 “Galaxy” (Cont)

C-5 Pallet Positions - 36

F R O N T	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35

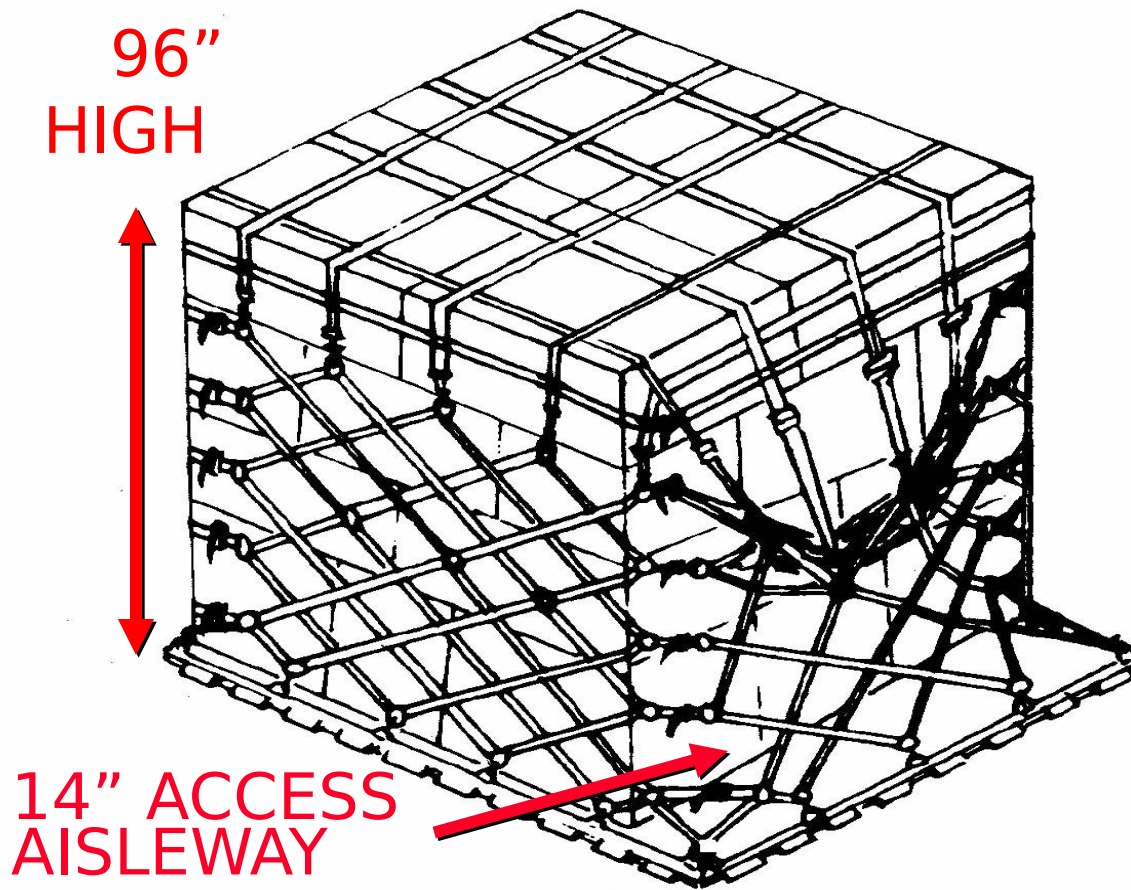
FWD RAMP

C-5 Pallet positions 1 & 2
- Fwd ramp

AFT RAMP

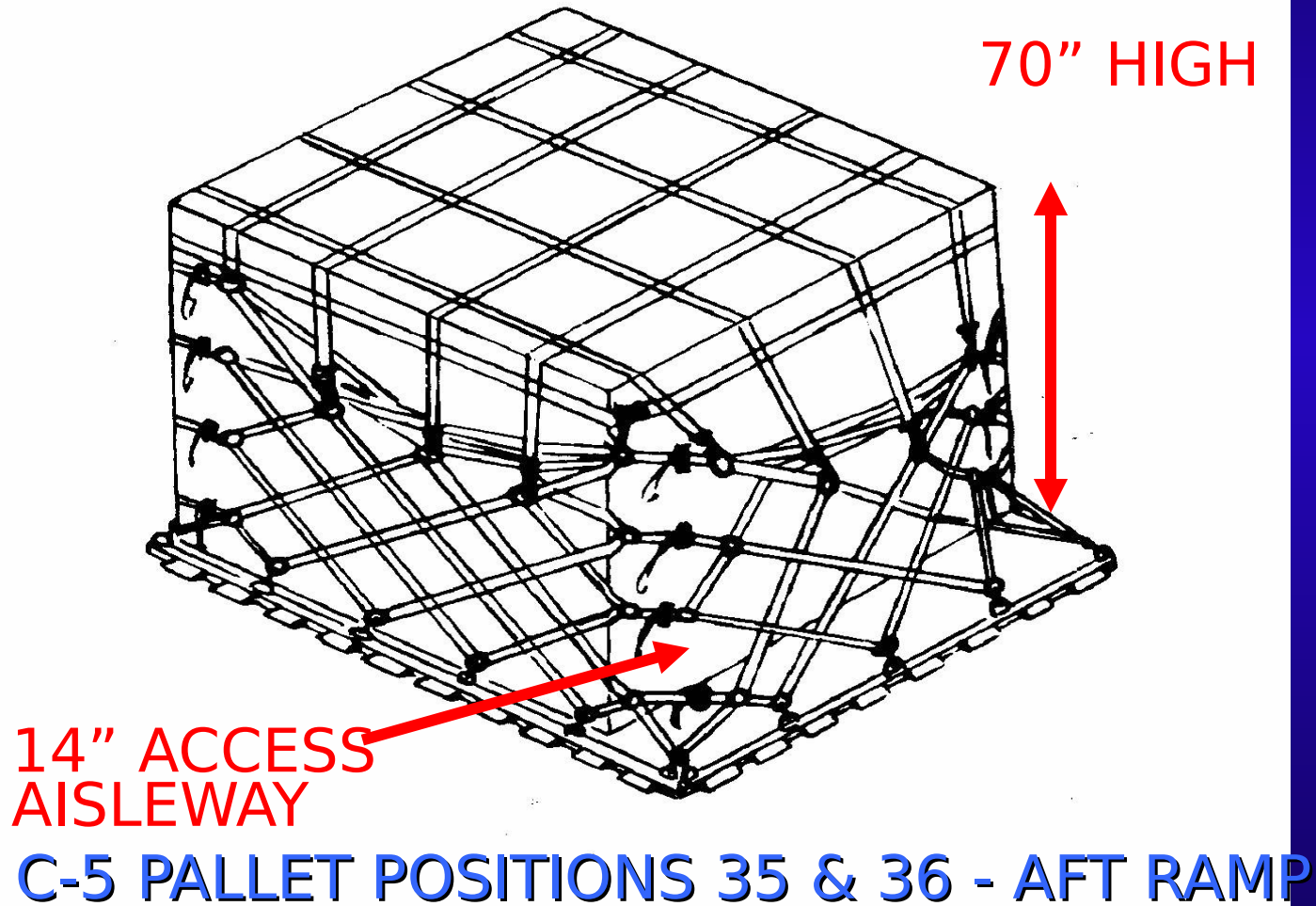
C-5 Pallet positions 35 &
36
- Aft ramp

C-5 "Galaxy" (Cont)



C-5 PALLET POSITIONS 1 & 2 - FWD RAMP

C-5 "Galaxy" (Cont)



C-5 “Galaxy” (Cont)



**TROOP COMPARTMENT
SEATING**

KC-10 EXTENDER PROFILE



- **Dual Role: Cargo / Passengers - Inflight Refueling**
- **Max. Fuel Load: 356,000 Lbs. (Six fuel cells)**
- **Max. Unrefueled Range: 4,400 NM With Cargo (85 S/T)**
- **Maximum Takeoff Weight: 590,000 Lbs.**
- **Entered Service: March 1981**

KC-10A

“Extender”

- Primary Function: Aerial tanker and transport
- Length: 181 feet, 7 inches Height: 58 feet, 1 inch
- Wingspan: 165 feet, 4.5 inches
- Maximum Takeoff Weight: 590,000 pounds
- Range: 4,400 miles (3,800 nautical miles) with cargo



KC-10 INFLIGHT REFUELING MISSION

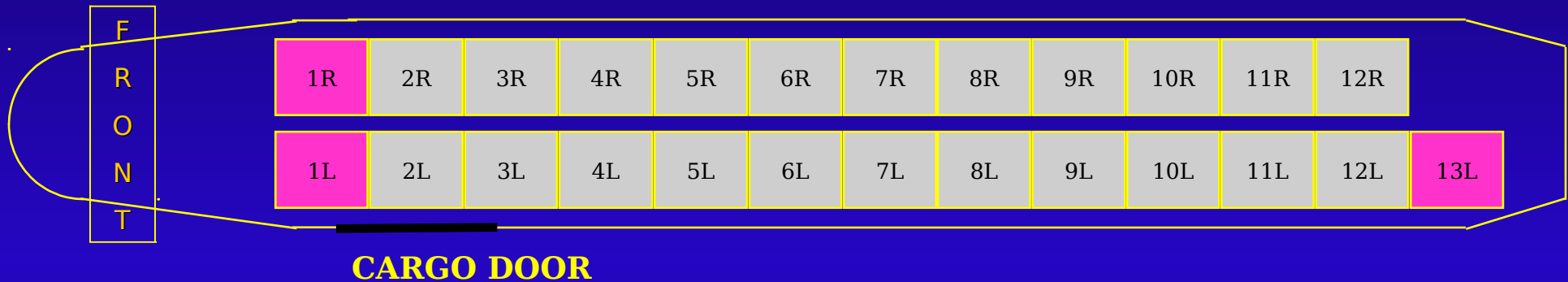


KC-10A “Extender” (Cont)

- Maximum Cargo Payload: 170,000 pounds
- Pallet Positions: 25
- Crew: Four (aircraft commander, pilot, flight engineer and boom operator)



KC-10A “Extender” (Cont) KC-10 PALLET POSITIONS



- **NOTE:** Positions 1L & 1R are normally not used (seats installed) Pallet position 13L is not offered for cargo
- Pallets must be rotated 90 degrees to be loaded

KC-10A "Extender" (Cont)

CARGO COMPARTMENT - AFT

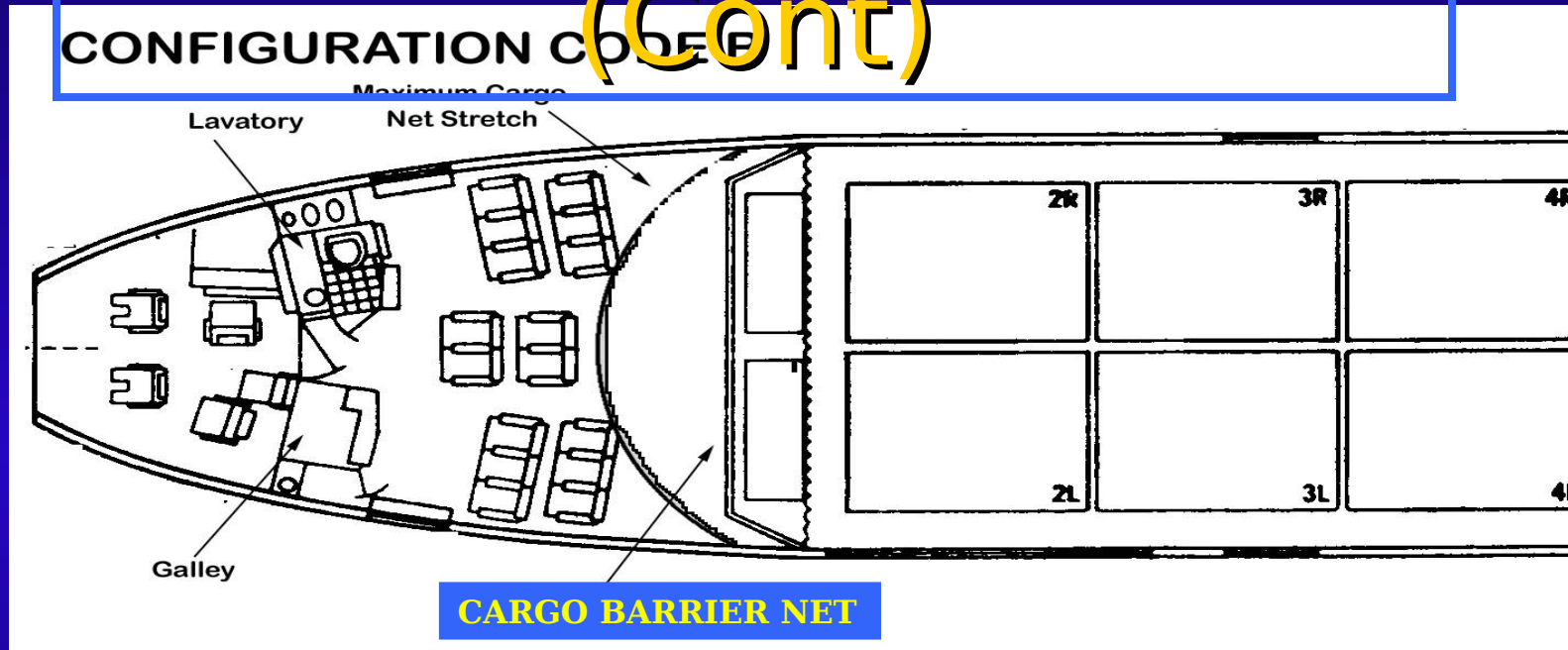


Courtesy: Dan Pare

TROOP SEATS



KC-10A “Extender” (Cont)



22 PALLET POSITIONS AVAILABLE

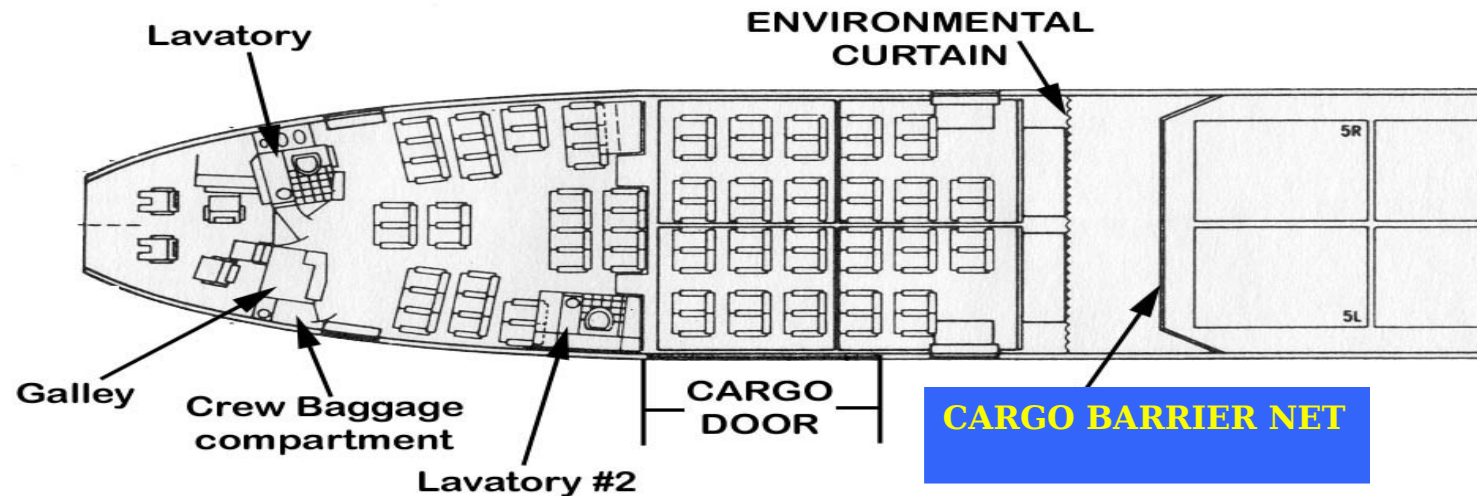
10 TROOP SEATS AVAILABLE

6 ADDITIONAL CREW MEMBERS

16 TOTAL SEATS

KC-10A "Extender" (Cont)

CONFIGURATION CODE D



16 PALLET POSITIONS AVAILABLE

69 TROOP SEATS AVAILABLE

6 ADDITIONAL CREW MEMBERS

75 TOTAL SEATS

KC-10A “Extender” (Cont)

KC-10 MHE MILITARY LOADER (TUNNER)



KC-10A "Extender"

KC-10 MHE (CONT) COMMERCIAL LOADER





SMALL AUSTERE AIRFIELD ACCESS PROVIDES NEEDED FLEXIBILITY

C-17 CAPABILITY 10,000



C-5 CAPABILITY 850

FREE WORLD, EXCLUDING U.S.

Civil Reserve Air Fleet (CRAF)



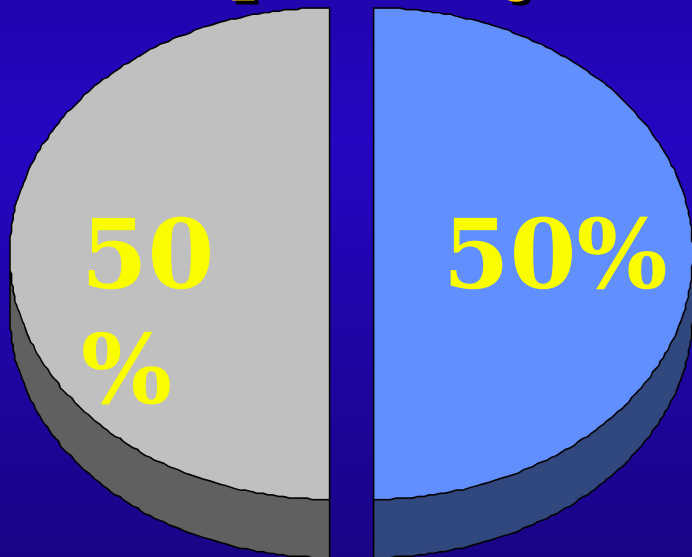
CRAF (Cont)

- **CRAF** is a voluntary contractual program designed to augment US military airlift forces with civil air carriers to support national defense emergency airlift requirements

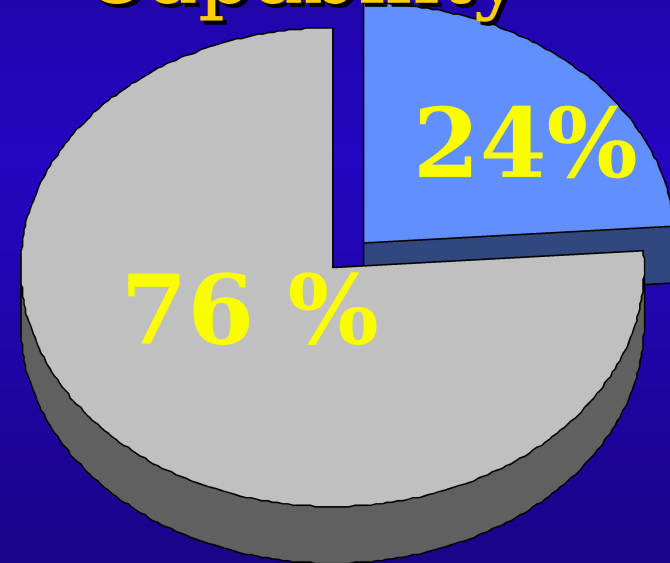


CRAF (Cont)

Strategic
Capability



Cargo Lift
Capability



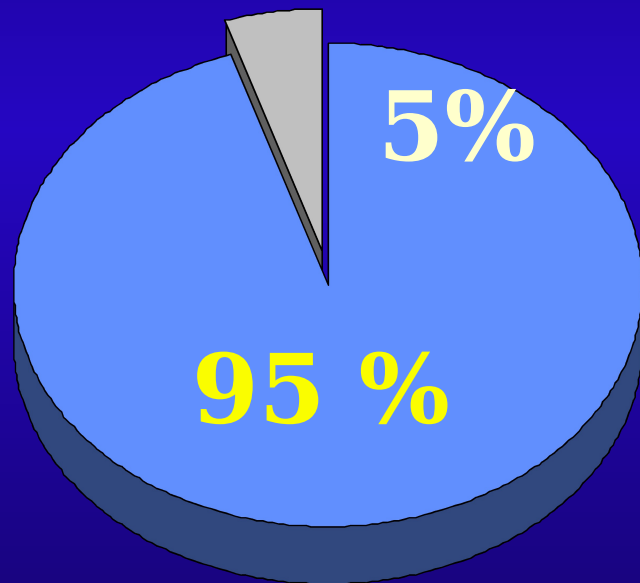
ORGANIC AIRLIFT



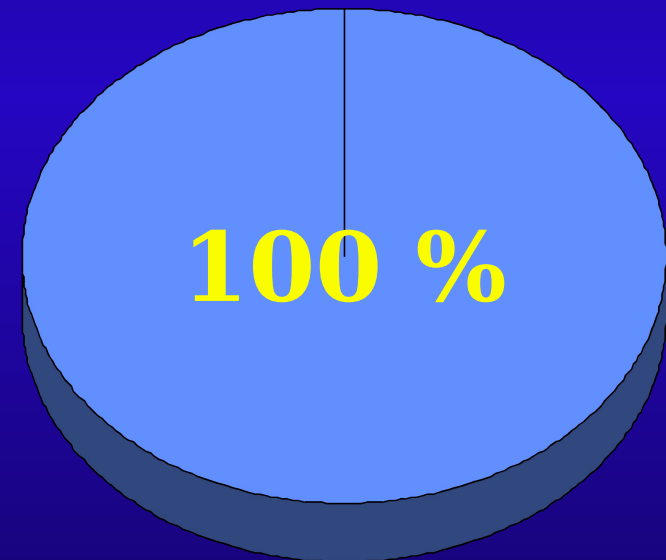
COMMERCIAL AIRLIFT

CRAF (Cont)

Passenger
Lift Capability



Aeromedical
Evac Lift
Capability



CRAF (Cont)

CRAF OPERATIONAL STAGES

- ✈ STAGE I - Committed expansion to 77 aircraft
- ✈ STAGE II - Airlift Emergency - additional 182
- ✈ STAGE III - Military Emergencies up to an additional 544 aircraft available

NOTE: DOES NOT HAVE TO BE ACTIVATED IN STAGE ORDER

CRAF aircraft totals change quarterly.
Approximately 800+ aircraft available (1st Qtr FY 01)

CRAF (Cont)

- CRAF Operational Segments
 - International segment:
 - + Short range section
 - + Long range section
 - Aeromedical segment
 - National segment:
 - + Domestic & Alaska sections

QUESTIONS ???



SUMMARY





On
Learnin
g

TAKE A 10 MIN BREAK

